



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/532,352	03/21/2000	Kogo Endo	9319S-000127	7425

7590 05/25/2005
Harness Dickey & Pierce P L C
P O Box 828
Bloomfield Hills, MI 48303

EXAMINER

LESPERANCE, JEAN E

ART UNIT PAPER NUMBER

2674

DATE MAILED: 05/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/532,352

Applicant(s)

ENDO ET AL

Examiner

Jean E Lesperance

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on September 14, 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2/18/05, 2/22/05 6) ☐ Other:

DETAILED ACTION

1. The amendment filed on 2/28/2005 is entered.
2. The supplemental amendment filed on September 14, 2004 is considered.
3. The response to Notice of Non-Compliant Amendment filed on December 15, 2004 is considered.
4. The amendment to the drawings filed on September 14, 2004 is accepted.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-38 are rejected under 35 USC. 103 (a) as being unpatentable over US Patent # 5,777,610 ("Sugimoto et al.").

Regarding claim 1, Sugimoto et al. teach the display panel 11' is constituted by sealing liquid crystals 505 in a space between a pair of glass substrates 506 and 506' (Fig.2) corresponding to display panel having electrooptic material on a substrate; four first flexible wiring boards 19 each of which is mounted with a drive IC 16 for outputting a signal for driving the display panel 11 (column 10, lines 47-49) corresponding to a

Art Unit: 2674

driver integrated circuit mounted on an extended area an edge of the substrate, said extended area provided in at least a margin of said display panel; along the sides 12a and 12b are arranged circuit boards 14 and 14 having circuit wirings 141 and 142 for supplying a control signal to the drive ICs 15 and 16 respectively (column 10, lines 53-59) corresponding to wherein a circuit board having electronic components thereon is provided above said driver integrated circuit and substantially within said extended area, the circuit board connected to said driver integrated circuit; while the input terminals 107 are connected with corresponding electrode terminal 105 provided in an end portion of the circuit board 14 extending alongside of the display panel 11 (column 11, lines 30-35) corresponding to an input unit for inputting a signal to said display device. The prior art does not explicitly teach a circuit board includes a signal-output terminal portion and a scanning-output terminal portion extends outside of the one extended area to the other extended area. The prior art teaches the control 17 is provided at both ends with electrode terminals for outputting the control signal and the electrode terminals are connected to the circuit wirings 141 and 142 of the circuit board 14 via connector 18 (column 10, lines 60-65).

Thus, it would have been obvious to a person of ordinary skill in the art to modify the control 17 is provided at both ends with electrode terminals for outputting the control signal and the electrode terminals are connected to the circuit wirings 141 and 142 of the circuit board 14 via connector 18 to achieve the function of the signal-output terminal portion and a scanning-output terminal portion because this would provide a display device which has a reduced size and weight and an improved reliability.

Regarding claim 2, Sugimoto et al. teach the display panel 11' is constituted by sealing liquid crystals 505 in a space between a pair of glass substrates 506 and 506' (Fig.2) corresponding to the display panel having an electrooptic material layer sandwiched between a pair of substrates disposed opposite to each other; four first flexible wiring boards 19 each of which is mounted with a drive IC 16 for outputting a signal for driving the display panel 11 (column 10, lines 47-49) corresponding to a driver integrated circuit mounted on an extended area an edge of the substrate, said extended area provided in at least a margin of said display panel; along the sides 12a and 12b are arranged circuit boards 14 and 14 having circuit wirings 141 and 142 for supplying a control signal to the drive ICs 15 and 16 respectively (column 10, lines 53-59) corresponding to wherein a circuit board having electronic components thereon is provided above said driver integrated circuit and substantially within said extended area, the circuit board connected to said driver integrated circuit; and while the input terminals 107 are connected with corresponding electrode terminal 105 provided in an end portion of the circuit board 14 extending alongside of the display panel 11 (column 11, lines 30-35) corresponding to an input unit for inputting a signal to said display device; it is inherent in the art to house the display panel corresponding to wherein said display device is accommodated in a casing.

Regarding claim 3, Sugimoto et al. teach a display panel 11 (Fig.4) corresponding to a display panel including: glass substrates 11a and 11b (Fig.4) corresponding to a first and a second substrate opposed to each other; on the y-axis the substrate 11b is extended further than the substrate 11a (Fig.4) corresponding to a first

Art Unit: 2674

extended area provided in one of two adjacent margins of said display panel wherein the first substrate extends further than an edge of the second substrate; on the x-axis the substrate 11b is again extended further than the substrate 11a (Fig.4) corresponding to a second extended area provided in the other of the two adjacent margins wherein the second substrate extends further than an edge of the first substrate; a plurality of electrode terminals 102 via IC circuit 15 (Fig.4) corresponding to scanning electrodes formed on a surface of the first substrate opposed to the second substrate; a plurality of electrode terminals 102 via IC 16 (Fig.4) corresponding to data-signal electrodes formed on a surface of the second substrate opposed to the first substrate; a drive IC 15 for outputting a scanning signal for driving the display panel 11 (Fig.4) corresponding to a scanning driver integrated circuit connected to said scanning electrodes, the scanning driver integrated circuit being mounted on the first extended area; and a drive IC 16 for outputting a display panel for driving the display panel 11 (column 10, lines 48-49) corresponding to a data-signal driver integrated circuit connected to said data-signal electrodes mounted on the second extended area; along the sides 12a and 12b are arranged circuit boards 14 and 14 having circuit wirings 141 and 142 for supplying a control signal to the drive ICs 15 and 16 respectively (column 10, lines 53-59) corresponding to wherein a circuit board having electronic components thereon is provided at least above said scanning driver integrated circuit mounted in said first extended area or said data-signal driver integrated circuit mounted in said second extended area so as to be essentially within a plane region of either extended area; and input terminals 107 drives IC 15 (column 11, lines 49-50) corresponding to an

Art Unit: 2674

input terminal portion of said scanning driver integrated circuit mounted in said first extended area and input terminals 301 drive IC 16 (column 11, lines 44-45) corresponding to an input terminal portion of said data-signal driver integrated circuit mounted in said second extended area are connected to an output terminal portion of said control circuit board.

Regarding claim 4, Sugimoto et al. teach a control board 17 mounted on one of said first extended area Fig.4 (18) and said second extended area Fig.4 (18) corresponding to said control circuit board, mounted on one of said first extended area and said second extended area, extends so as to be connected to an end of an input wiring portion formed close to a shorter side of the other of said extended areas.

Regarding claim 5, Sugimoto et al. teach the electrode terminals at both ends of the control board 17 are connected with the terminals on one side of the control board 17 of the circuit wiring 141 and 142 on the circuit board 14 by the connector 18 (column 13, lines 38-41) corresponding to said control circuit board further comprises a circuit-wiring pattern formed on a flexible insulating resin substrate and electronic components provided for controlling a driving of said display panel.

Regarding claim 6, Sugimoto et al. teach a control board 17 mounted on one of said first extended area Fig.4 (18) and said second extended area Fig.4 (18) corresponding to said control circuit board, mounted on one of said first extended area and said second extended area, extends so as to be connected to an end of an input wiring portion formed close to a shorter side of the other of said extended areas.

Regarding claim 7, Sugimoto et al. teach along the sides 12a and 12b are arranged circuit boards 14 and 14 having circuit wirings 141 and 142 (column 10, lines 53-55) corresponding to said control circuit board which inherently has a multilayer structure having an insulating layer interposed between a plurality of wiring layers in which predetermined upper and lower wiring layers are connected via a through hole.

Regarding claim 8, Sugimoto et al. teach the input terminals of the adjacent terminal board, connected portions of the junction and input terminals of the adjacent flexible wiring boards being located on the peripheral portion of the display panel (column 23, lines 5-9) corresponding to said control circuit board includes a flexible input wiring portion.

Regarding claim 9, Sugimoto et al. disclose an opposed substrate 12 opposed to the semiconductor device 11 and an electrooptical material layer or liquid crystal layer 13 interposed between the semiconductor device 11 and the opposed substrate 12 (column 10, lines 4-8) corresponding to said electrooptic material layer is a liquid-crystal layer.

As for claims 10, Sugimoto et al. teach a display device including a display panel, such as a liquid crystal display device, an EL (electroluminescence) display device (column 1, lines 8-10) corresponding to said electrooptic material layer is an electroluminescent light-emitting layer including a electroluminescent material.

Regarding claim 11, Sugimoto et al. teach the display panel 11' is constituted by sealing liquid crystals 505 in a space between a pair of glass substrates 506 and 506' (Fig.2) corresponding to display panel having electrooptic material on a

Art Unit: 2674

substrate; four first flexible wiring boards 19 each of which is mounted with a drive IC 16 for outputting a signal for driving the display panel 11 (column 10, lines 47-49) corresponding to a driver integrated circuit mounted on an extended area an edge of the substrate, said extended area provided in at least a margin of said display panel; along the sides 12a and 12b are arranged circuit boards 14 and 14 having circuit wirings 141 and 142 for supplying a control signal to the drive ICs 15 and 16 respectively (column 10, lines 53-59) corresponding to wherein a circuit board having electronic components thereon is provided above said driver integrated circuit and substantially within said extended area, the circuit board connected to said driver integrated circuit; while the input terminals 107 are connected with corresponding electrode terminal 105 provided in an end portion of the circuit board 14 extending alongside of the display panel 11 (column 11, lines 30-35) corresponding to an input unit for inputting a signal to said display device.

Regarding claim 12, Sugimoto et al. teach the display panel 11' is constituted by sealing liquid crystals 505 in a space between a pair of glass substrates 506 and 506' (Fig.2) corresponding to the display panel having an electrooptic material layer sandwiched between a pair of substrates disposed opposite to each other; four first flexible wiring boards 19 each of which is mounted with a drive IC 16 for outputting a signal for driving the display panel 11 (column 10, lines 47-49) corresponding to a driver integrated circuit mounted on an extended area an edge of the substrate, said extended area provided in at least a margin of said display panel; along the sides 12a and 12b are arranged circuit boards 14 and 14 having circuit wirings 141 and 142 for supplying a

control signal to the drive ICs 15 and 16 respectively (column 10, lines 53-59) corresponding to wherein a circuit board having electronic components thereon is provided above said driver integrated circuit and substantially within said extended area, the circuit board connected to said driver integrated circuit; and while the input terminals 107 are connected with corresponding electrode terminal 105 provided in an end portion of the circuit board 14 extending alongside of the display panel 11 (column 11, lines 30 35) corresponding to an input unit for inputting a signal to said display device; it is inherent in the art to house the display panel corresponding to wherein said display device is accommodated in a casing.

Regarding claim 13, Sugimoto et al. teach a control board 17 mounted on one of said first extended area Fig.4 (18) and said second extended area Fig.4 (18) corresponding to said control circuit board, mounted on one of said first extended area and said second extended area, extends so as to be connected to an end of an input wiring portion formed close to a shorter side of the other of said extended areas.

Regarding claim 14, Sugimoto et al. teach the electrode terminals at both ends of the control board 17 are connected with the terminals on one side of the control board 17 of the circuit wiring 141 and 142 on the circuit board 14 by the connector 18 (column 13, lines 38-41) corresponding to said control circuit board further comprises a circuit-wiring pattern formed on a flexible insulating resin substrate and electronic components provided for controlling a driving of said display panel.

Regarding claim 15, Sugimoto et al. teach a control board 17 mounted on one of said first extended area Fig.4 (18) and said second extended area Fig.4 (18)

Art Unit: 2674

corresponding to said control circuit board, mounted on one of said first extended area and said second extended area, extends so as to be connected to an end of an input wiring portion formed close to a shorter side of the other of said extended areas.

Regarding claim 16, Sugimoto et al. teach along the sides 12a and 12b are arranged circuit boards 14 and 14 having circuit wirings 141 and 142 (column 10, lines 53-55) corresponding to said control circuit board which inherently has a multilayer structure having an insulating layer interposed between a plurality of wiring layers in which predetermined upper and lower wiring layers are connected via a through hole.

Regarding claim 17, Sugimoto et al. teach the input terminals of the adjacent terminal board, connected portions of the junction and input terminals of the adjacent flexible wiring boards being located on the peripheral portion of the display panel (column 23, lines 5-9) corresponding to said control circuit board includes a flexible input wiring portion.

Regarding claim 18, Sugimoto et al. teach the liquid crystal display device is provided with a display panel 11' in which is included an electrooptic material layer (see Figure 1).

Regarding claim 19, Sugimoto et al. teach a display device including a display panel, such as a liquid crystal display device, an EL (electroluminescence) display device (column 1, lines 8-10) corresponding to an electroluminescent material.

Regarding claim 20, Sugimoto et al. teach a flexible wiring board Fig.4 (19) with an integrated circuit drive (16) where the flexible wiring board connects the input terminal to the electrical component of the wiring circuit board.

Regarding claim 21, Sugimoto et al. teach the electrode terminals at both ends of the control board 17 are connected with the terminals on one side of the control board 17 of the circuit wiring 141 and 142 on the circuit board 14 by the connector 18 (column 13, lines 38-41) corresponding to said control circuit board further comprises a circuit-wiring pattern formed on a flexible insulating resin substrate and electronic components provided for controlling a driving of said display panel.

Regarding claim 22, Sugimoto et al. teach the electrode terminals at both ends of the control board 17 are connected with the terminals on one side of the control board 17 of the circuit wiring 141 and 142 on the circuit board 14 by the connector 18 (column 13, lines 38-41) corresponding to said control circuit board further comprises a circuit-wiring pattern formed on a flexible insulating resin substrate and electronic components provided for controlling a driving of said display panel.

Regarding claim 23, Sugimoto et al. teach along the sides 12a and 12b are arranged circuit boards 14 and 14 having circuit wirings 141 and 142 (column 10, lines 53-55) corresponding to said control circuit board which inherently has a multilayer structure having an insulating layer interposed between a plurality of wiring layers in which predetermined upper and lower wiring layers are connected via a through hole.

Regarding claim 24, Sugimoto et al. teach the input terminals of the adjacent terminal board, connected portions of the junction and input terminals of the adjacent flexible wiring boards being located on the peripheral portion of the display panel (column 23, lines 5-9) corresponding to said control circuit board includes a flexible input wiring portion.

Regarding claim 25, Sugimoto et al. teach the input terminals of the adjacent terminal board, connected portions of the junction and input terminals of the adjacent flexible wiring boards being located on the peripheral portion of the display panel (column 23, lines 5-9) corresponding to said control circuit board includes a flexible input wiring portion.

Regarding claim 26, Sugimoto et al. teach a display device including a display panel, such as a liquid crystal display device, an EL (electroluminescence) display device (column 1, lines 8-10) corresponding to an electroluminescent material.

Regarding claim 27, Sugimoto et al. teach the electrode terminals at both ends of the control board 17 are connected with the terminals on one side of the control board 17 of the circuit wiring 141 and 142 on the circuit board 14 by the connector 18 (column 13, lines 38-41) corresponding to said control circuit board further comprises a circuit-wiring pattern formed on a flexible insulating resin substrate and electronic components provided for controlling a driving of said display panel.

Regarding claim 28, Sugimoto et al. teach along the sides 12a and 12b are arranged circuit boards 14 and 14 having circuit wirings 141 and 142 (column 10, lines 53-55) corresponding to said control circuit board which inherently has a

multilayer structure having an insulating layer interposed between a plurality of wiring layers in which predetermined upper and lower wiring layers are connected via a through hole.

Regarding claim 29, Sugimoto et al. teach a flexible wiring board Fig.4 (19) with an integrated circuit drive (16) corresponding to said circuit board includes a flexible input wiring portion.

Regarding claim 30, Sugimoto et al. teach the liquid crystal display device is provided with a display panel 11' in which is included an electrooptic material layer (see Figure 1).

Regarding claim 31, Sugimoto et al. teach a flexible wiring board Fig.4 (19) with an integrated circuit drive (16) where the flexible wiring board connects the input terminal to the electrical component of the wiring circuit board.

Regarding claim 32, Sugimoto et al. teach the display panel 11' is constituted by sealing liquid crystals 505 in a space between a pair of glass substrates 506 and 506' (Fig.2) corresponding to display panel having electrooptic material on a substrate; four first flexible wiring boards 19 each of which is mounted with a drive IC 16 for outputting a signal for driving the display panel 11 (column 10, lines 47-49) corresponding to a driver integrated circuit mounted on an extended area an edge of the substrate, said extended area provided in at least a margin of said display panel; along the sides 12a and 12b are arranged circuit boards 14 and 14 having circuit wirings 141 and 142 for supplying a control signal to the drive ICs 15 and 16 respectively (column 10, lines 53-59) corresponding to wherein a circuit board having electronic components

thereon is provided above said driver integrated circuit and substantially within said extended area, the circuit board connected to said driver integrated circuit; while the input terminals 107 are connected with corresponding electrode terminal 105 provided in an end portion of the circuit board 14 extending alongside of the display panel 11 (column 11, lines 30-35) corresponding to an input unit for inputting a signal to said display device.

Regarding claim 33, Sugimoto et al. teach the display panel 11' is constituted by sealing liquid crystals 505 in a space between a pair of glass substrates 506 and 506' (Fig.2) corresponding to the display panel having an electrooptic material layer sandwiched between a pair of substrates disposed opposite to each other; four first flexible wiring boards 19 each of which is mounted with a drive IC 16 for outputting a signal for driving the display panel 11 (column 10, lines 47-49) corresponding to a driver integrated circuit mounted on an extended area an edge of the substrate, said extended area provided in at least a margin of said display panel; along the sides 12a and 12b are arranged circuit boards 14 and 14 having circuit wirings 141 and 142 for supplying a control signal to the drive ICs 15 and 16 respectively (column 10, lines 53-59) corresponding to wherein a circuit board having electronic components thereon is provided above said driver integrated circuit and substantially within said extended area, the circuit board connected to said driver integrated circuit; and while the input terminals 107 are connected with corresponding electrode terminal 105 provided in an end portion of the circuit board 14 extending alongside of the display panel 11 (column 11, lines 30-35) corresponding to an input unit for inputting a signal to said display device; it is

inherent in the art to house the display panel corresponding to wherein said display device is accommodated in a casing.

Regarding claim 34, Sugimoto et al. teach the display panel 11' is constituted by sealing liquid crystals 505 in a space between a pair of glass substrates 506 and 506' (Fig.2) corresponding to display panel having electrooptic material on a substrate; four first flexible wiring boards 19 each of which is mounted with a drive IC 16 for outputting a signal for driving the display panel 11 (column 10, lines 47-49) corresponding to a driver integrated circuit mounted on an extended area an edge of the substrate, said extended area provided in at least a margin of said display panel; along the sides 12a and 12b are arranged circuit boards 14 and 14 having circuit wirings 141 and 142 for supplying a control signal to the drive ICs 15 and 16 respectively (column 10, lines 53-59) corresponding to wherein a circuit board having electronic components thereon is provided above said driver integrated circuit and substantially within said extended area, the circuit board connected to said driver integrated circuit; while the input terminals 107 are connected with corresponding electrode terminal 105 provided in an end portion of the circuit board 14 extending alongside of the display panel 11 (column 11, lines 30-35) corresponding to an input unit for inputting a signal to said display device.

Regarding claim 35, Sugimoto et al. teach the display panel 11' is constituted by sealing liquid crystals 505 in a space between a pair of glass substrates 506 and 506' (Fig.2) corresponding to display panel having electrooptic material on a substrate; four first flexible wiring boards 19 each of which is mounted with a drive IC

16 for outputting a signal for driving the display panel 11 (column 10, lines 47-49) corresponding to a driver integrated circuit mounted on an extended area an edge of the substrate, said extended area provided in at least a margin of said display panel; along the sides 12a and 12b are arranged circuit boards 14 and 14 having circuit wirings 141 and 142 for supplying a control signal to the drive ICs 15 and 16 respectively (column 10, lines 53-59) corresponding to wherein a circuit board having electronic components thereon is provided above said driver integrated circuit and substantially within said extended area, the circuit board connected to said driver integrated circuit; while the input terminals 107 are connected with corresponding electrode terminal 105 provided in an end portion of the circuit board 14 extending alongside of the display panel 11 (column 11, lines 30-35) corresponding to an input unit for inputting a signal to said display device.

Regarding claim 36, Sugimoto et al. teach a flexible wiring board Fig.4 (19) with an integrated circuit drive (16) corresponding to the electronic component of the circuit board is an integrated circuit.

Regarding claim 37, Sugimoto et al. teach the circuit wirings 44 may be coated with an insulating resin in order to increase the reliability of insulation between the wirings (see Figure 13) corresponding to an insulation substrate disposed between the driver integrated circuit and the flexible circuit board.

Regarding claim 38, Sugimoto et al. teach a flexible wiring board Fig.4 (19) with an integrated circuit drive (16) where the flexible wiring board connects the input terminal to the electrical component of the wiring circuit board.

Response to Amendment

6. Applicant's arguments filed on 2-28-2004 have been fully considered but they are not persuasive. The applicant argued that the prior art does not teach "a driver integrated circuit mounted directly over a glass substrate as set forth". Examiner disagrees because the prior art, Sugimoto et al., teaches the flexible wiring circuit board with the integrated circuit drive Fig.4 (16 and 19) which are mounted on the glass substrate Fig.4 (11b) corresponding to a driver integrated circuit mounted directly over a glass substrate as set forth. The applicant argued that the prior art, Sugimoto et al., fails to teach or suggest "at least a portion of the circuit board overlapping the glass substrate". Examiner disagrees with the applicant because the prior art teaches the flexible wiring circuit board with the integrated circuit drive Fig.4 (16 and 19) that are mounted on the glass substrate Fig.4 (11b) corresponding to "at least a portion of the circuit board overlapping the glass substrate". The applicant argued that the prior art does not teach a flexible circuit board and a glass substrate. Examiner disagrees with the applicant because the prior art teaches the flexible wiring circuit board with the integrated circuit drive Fig.4 (16 and 19) that are mounted on the glass substrate Fig.4 (11b). The claims have been amended but not specific enough to include the allowable subject matter in them. Therefore the rejection is maintained as was rejected in the previous office action.

Conclusion

Art Unit: 2674

7 THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Lesperance whose telephone number is (571) 272-7692. The examiner can normally be reached on from Monday to Friday between 10:00AM and 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard, can be reached on (571) 272-7603.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)


Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal

Art Unit: 2674

Drive, Arlington, VA, Sixth Floor (Receptionist).

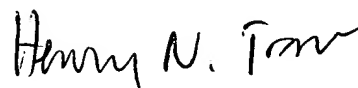
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Jean Lesperance



Art unit 2674

Date 5/17/2005



**HENRY N. TRAN
PRIMARY EXAMINER**